WHAT IS CLAIMED IS:

1. A composite fibrous substrate comprising core fibers and a carbohydrate sheath attached around the individual core fibers and wherein the carbohydrate sheath is adhered to itself by covalent bonds.

2. A composite fibrous substrate according to claim 1 wherein the carbohydrate sheath further comprises at least one auxiliary component.

3. A composite fibrous substrate according to claim 2 wherein the auxiliary component is selected from the group consisting of metal colloids, magnetic colloids, infrared-absorbing compounds, ultraviolet light-blocking compounds, bioactive agents, flame-retardant chemicals, anti-static agents, odor-absorbing compounds, neutralizers, and hydrolyzable linkers.

4. A composite fibrous substrate according to claim 2 wherein the auxiliary component is a colorant.

5. A composite fibrous substrate according to claim 1 wherein the core fibers are selected from the group consisting of synthetic fibers, man-made fibers, and natural fibers.

6. A method of preparing a composite fibrous substrate, the method comprising the steps of:
contacting a fibrous substrate comprising core fibers with an aqueous solution of water-soluble carbohydrate and a crosslinker and, optionally, a suitable crosslinker catalyst;
heating the fibrous substrate to dryness; and
curing at a temperature sufficient to cause reaction between the crosslinker and the carbohydrate;
to give a composite fibrous substrate comprising a carbohydrate sheath attached around the individual core fibers of the substrate and wherein the carbohydrate sheath is adhered to itself by covalent bonds.

7. A method according to claim 6 wherein the aqueous solution further comprises at least one auxiliary component.

8. A method according to claim 7 wherein the auxiliary component is selected from the group consisting of colorants, metal colloids, magnetic colloids, infrared-absorbing compounds, ultraviolet light-blocking compounds, bioactive agents, flame-retardant chemicals, anti-static agents, odor-absorbing compounds, neutralizers, and hydrolyzable linkers.

9. A method according to claim 6 which further comprises the step of reacting the carbohydrate sheath with at least one auxiliary component to bind the auxiliary component onto or within the carbohydrate sheath.

10. A method according to claim 9 wherein the auxiliary component is selected from the group consisting of metal colloids, magnetic colloids, infrared-absorbing compounds, ultraviolet light-blocking compounds, bioactive agents, flame-retardant chemicals, anti-static agents, odor-absorbing compounds, neutralizers, and hydrolyzable linkers.

11. A method according to claim 9 wherein the auxiliary component is a colorant.

12. A method according to claim 6 which further comprises the step of treating the composite fibrous substrate with a post-processing treatment generally used on cotton.

13. A method of dyeing a composite fibrous substrate, the method comprising preparing a composite fibrous substrate according to claim 6; and reacting the carbohydrate sheath with at least one colorant to bind the colorant onto or within the carbohydrate sheath; to give a dyed composite fibrous substrate having the colorant on or in the carbohydrate sheath.

14. A method according to claim 13 which further comprises the steps of:
contacting the dyed composite fibrous substrate with an aqueous solution of water-soluble carbohydrate and a crosslinker and, optionally, a suitable crosslinker catalyst;
heating the dyed fibrous substrate to dryness; and
curing at a temperature sufficient to cause reaction between the crosslinker and carbohydrate.

15. A method according to claim 13 wherein the colorant is lighter than the color of the core fibers of the fibrous substrate.

16. A method according to claim 13 wherein the colorant is darker than the color of the core fibers of the fibrous substrate.

17. A method of dyeing a composite fibrous substrate, the method comprising:

contacting a fibrous substrate comprising core fibers with an aqueous solution of water-soluble carbohydrate, a crosslinker, a colorant and, optionally, a suitable crosslinker catalyst;

heating the fibrous substrate to dryness; and

curing at a temperature sufficient to cause reaction between the crosslinker and the carbohydrate;

to give a dyed composite fibrous substrate comprising a carbohydrate sheath attached around the individual core fibers of the substrate and wherein the carbohydrate sheath is adhered to itself by covalent bonds and wherein the colorant is within the carbohydrate sheath.

18. A method according to claim 17 which further comprises the steps of:

contacting the dyed composite fibrous substrate with an aqueous solution of water-soluble carbohydrate and a crosslinker and, optionally, a suitable crosslinker catalyst;

heating the dyed fibrous substrate to dryness; and

curing at a temperature sufficient to cause reaction between the crosslinker and carbohydrate.

19. A method according to claim 17 wherein the colorant is lighter than the color of the core fibers of the fibrous substrate.

20. A method according to claim 17 wherein the colorant is darker than the color of the core fibers of the fibrous substrate.